

# *COALTEC ENERGY* *USA*

[www.CoaltecEnergy.com](http://www.CoaltecEnergy.com)

# *COALTEC ENERGY USA*

- Why is this the solution, or a major component of the solution to the issues facing many industries, but specifically the poultry and timber industries?

# *COALTEC ENERGY USA*

- The problem doesn't exist because the operators have ignored the situation. There have been millions of dollars spent in search of a solution to the problem.
- There are alternative solutions - engineered land application/sale, composting, digestion, and removal of the waste material from the property. However, if they don't provide an adequate return on investment, they will not work on a long-term basis.

# *COALTEC ENERGY USA*

- The main issue that continues to be unresolved is the economic elimination of the volume of material generated.
- All of the alternative solutions work, but most are limited as to the volume they can handle; either by design or market constraints.

# *COALTEC ENERGY USA*

- Gasification provides a solution that can handle the volumes of material generated; and can be applied to multiple sites without the risk of affecting other sites.
- There have been and are many systems operating successfully in the wood industry for years, while other applications are relatively new.

# *COALTEC ENERGY USA*

- For the solution to be viable to all concerned, it must be able to address the following:
  - Be easy to operate
  - Low maintenance and low labor required
  - Environmentally compliant
  - Eliminate large volumes of material
  - Provide a final product that either has value, or is easily disposed
  - Can be easily integrated into the normal operating practices of the host facility
  - Adds value to the business

# *COALTEC ENERGY USA*

- Our system addresses all of the listed criteria.
- The system is easy to operate and maintain.
- It is designed to operate unattended and with minimal material handling.
- While the litter feed for the unit must meet some qualifications to be suitable, most farms have a product that meets these needs.
- For waste wood applications, the fuel is ideal for these systems.

# *COALTEC ENERGY USA*

- The system can consume large volumes of manure – our smallest unit (36 square feet of floor space) will consume approximately 1000 pounds of litter per hour. The feed rate for wood waste is slightly higher. We are also working on projects with as much as 200 tons per day of fuel.
- With most fuels, the air emissions from the system will typically comply with regulatory standards without post-combustion scrubbing– NOx levels are extremely low.
- The solid ash product will typically be about 10% to 15% of the weight of the feed input for litter, and below 5% for wood waste.



# *COALTEC ENERGY USA*

- The ash product will be a bone dry material that will be easily handled.
- It will still contain many of the nutrients, but in a form that is easily handled and transported.
- The syngas product will be combusted in the final stage of the system and produce a gas stream between 1800 and 2000 degrees F.
- This energy is now available for many applications.

# *COALTEC ENERGY USA*

- The ultimate goal is not simply to dispose of the fuel, but to utilize it to add value to the host facility.
- The heat can be used directly, or be converted to steam or electricity.
- One of our primary purposes is to design a system that will utilize the energy in a form that will provide the greatest benefit to the owner.

# *COALTEC ENERGY USA*

- We believe in distributive generation and single facility projects, or at least localized projects. Multi-farm, large operations create as many issues as they address – control of disease, transportation methods and costs, and difficulty to provide the host facility with useable energy.

# *COALTEC ENERGY USA*

- There are many potential uses for the energy.
- In a current project, the focus is to provide heat for the chicken houses and eliminate the need for propane heating.

# *COALTEC ENERGY USA*

- However, there are additional benefits to changing the method of heating the houses.
- One of the greatest issues facing poultry growers is animal health and growth rate/feed conversion.
- Propane adds moisture to the atmosphere in the houses, thus increasing the amount of ammonia in the air.

# *COALTEC ENERGY USA*

- The ability to control the relative humidity in the houses should have huge benefits to the grower – much more than simply eliminating the cost of using propane.
- It will also increase the ability to control the temperature by lowering the need to exhaust the ammonia-rich air from the houses.

# *COALTEC ENERGY USA*

- The project will also explore the value of the ash from the gasifier and the nutrients that are contained.
- The system provides a method to dispose of mortalities, which will reduce the risk of disease on the farm.

# *COALTEC ENERGY USA*

- The main goal of this project is not to prove the technology – it has already been proven and tested with a variety of fuels.
- The goal is to take this proven technology and utilize it in a manner that will provide the optimum benefit to the host facility and provide the greatest return on investment.











# *COALTEC ENERGY USA*

**For additional information contact:**

Barbara Gaume

Director of Marketing

Coaltec Energy USA, Inc.

Dallas Office

214-542-3321

[www.CoaltecEnergy.com](http://www.CoaltecEnergy.com)